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ABSTRACT

The purpose of this study was to examine the relationship between young children's sociometric status and their communication patterns. A total of 43 middle class children enrolled in three preschool classes were asked to select three children they liked to play with (measure of social acceptance) and three they did not like to play with (measure of social rejection). Social acceptance and rejection scores were used to divide the children into four sociometric groups: popular (high acceptance and low rejection), rejected (low acceptance and high rejection), controversial (high acceptance and high rejection), and neglected (low acceptance and low rejection). Children were then observed three times in a social play situation with two other children, once as the intruder (entering a dyad already playing together for 10 minutes) and twice as a nonintruder (part of the original dyad). Popular children directed their communications to others more clearly than did other groups. Also, when they were intruders, they were more likely to respond contingently to others than were the other groups. Rejected children were least likely to direct communications clearly and respond contingently to others. (Author)

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The Relationship Between Communication Patterns and Social Acceptance in Preschool Children

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Abstract

The Relationship Between Communication Patterns
and Social Acceptance in Preschool Children

The purpose of this study was to examine the relationship between young children's sociometric status and their communication patterns. Forty-three middle-class children enrolled in three preschool classes were asked to select three children they liked to play with (measure of Social Acceptance) and three they did not like to play with (measure of Social Rejection). Social Acceptance and Rejection scores were used to divide the children into four sociometric groups: popular (high Acceptance and low Rejection), rejected (low Acceptance and high Rejection), controversial (high Acceptance and high Rejection), and neglected (low Acceptance and low Rejection). Children were then observed three times in a social play situation with two other children, once as the intruder (ie., a child who enters the dyad that has already been playing together for ten minutes), and twice as a non-intruder (ie., part of the original dyad). Popular children directed their communications to others more clearly than did other groups. Also, when they were intruders, they were more likely to respond contingently to others than were the other groups. Rejected children were least likely to direct communications clearly and respond contingently to others.

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What behaviors contribute to making a preschool child socially accepted or rejected? This question has been addressed by several investigators in recent years, since research indicates that children who have problems with peer relationships are at risk for a variety of mental health and emotional adjustment problems later in life (Cowen, Pederson, Babigian, Izzo, & Trost, 1973; Kohlberg, LaCrosse, & Ricks, 1972; Roff, Sells, & Golden, 1972). Basic descriptive information about the social behavior patterns that distinguish children with successful versus unsuccessful peer relations is needed in order to devise effective intervention programs for children who lack social acceptance.

Researchers have generally investigated the relationship between social acceptance and social behavior by using sociometric measures to assess social acceptance, and then correlating sociometric scores with observations of peer interactions in naturalistic settings. In early studies of the relationship between social acceptance and social interaction in preschool children, social behavior was coded using fairly global categories which were focused primarily on the consequences of prosocial versus antisocial behaviors (e.g., Hartup, Glazer, & Charlesworth, 1967; Moore & Updegraff, 1964). Not surprisingly, social acceptance in preschool children has been found to be positively related to behaviors like helping, sharing, and cooperating, and negatively related to aggressive behaviors, noncompliance, and the like.

However, the relationship between social acceptance and patterns of communication has been largely ignored, even though communicative competence would seem essential for successful social interaction. Although a few recent studies have used more detailed observation codes which include information

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about communication patterns (e.g., Putallez & Gottman, 1981a), subjects in these more recent studies have generally been elementary school-aged children. Intervention programs aimed at helping socially rejected or isolated children improve their social interaction skills may well be more effective if they are aimed at younger children, whose problematic interaction patterns may be less firmly entrenched. Thus, more detailed information is needed about behavioral differences between accepted and unaccepted preschool children, including information about differences in their communication skills.

More information is also needed concerning the relative abilities of different sociometric status groups to adapt their communication skills when attempting to enter existing peer groups. Putallaz and Gottman (1981b) recently found that unpopular elementary school children had less effective strategies for entering peer groups than did popular elementary school children. No investigations have yet addressed the question of whether preschool children adjust their communications when entering a group, and if so, whether the nature of the adjustment varies with sociometric status.

Another limitation of past studies has been the frequent use of only social acceptance scores to assess sociometric status. As Coie, Dodge, and Coppotelli (1982) have pointed out, the types of behavioral distinctions that can be related to sociometric status vary greatly depending on whether children are assessed only for their level of social acceptance and their level of social rejection. Children who lack social acceptance may be either rejected (i.e., chosen as a disliked peer) or neglected (i.e., not chosen as either liked or disliked). Furthermore, some children (called controversial by Coie, et. al.) may be chosen as both highly accepted and highly rejected. Thus, important behavioral distinctions may be missed if only acceptance scores are used.

The purpose of our study was therefore to examine differences in the communication patterns used by popular, controversial, neglected, and rejected children both when they were part of an existing peer group and when they were entering an existing peer group. We chose to observe children interacting with the same acquainted peers that rated them in social acceptance and rejection, since we wished to observe the particular social interaction patterns associated with their sociometric status within that group.

The subjects of our study were 43 middle-class preschool children enrolled in three classes at the University of Texas Child and Family Laboratory. They ranged from 3½ to 5½ years old (mean age = 54 months).

To measure children's social acceptance, we presented each child with photographs of all the children in his or her class. After making sure that they could identify the photographs, we asked the children to look carefully at all the photographs and then asked them "Show me which child you like to play with the most." We asked this two more times, so that each child would choose a total of three accepted children. We then calculated a weighted Social Acceptance score for each child based on the number of times he or she was selected as a first, second, or third choice.[1]

Social rejection was measured in a similar fashion. After we removed the photographs of the accepted children, we asked children, "Show me which child you don't like to play with much." This was also repeated twice so that each child would choose three rejected children. Weighted Social Rejection scores were then calculated in the same way as Social Acceptance scores.

We then used Social Acceptance and Social Rejection scores to divide children into four social status groups. Children with high Social Acceptance (above the mean) and low Social Rejection (below the mean) were designated as popular, those with high Social Rejection and low Social Acceptance were

designated as rejected, those with high Social Acceptance and high Social Rejection were designated as controversial, and those with low Social Acceptance and low Social Rejection were designated as neglected. Figure 1 depicts these four social status groups and the number of children who fell into each group.

To find out how these groups differed in their social interaction skills, we grouped children from the same classroom into same-sex groups of three. Children were grouped with peers they had not selected as highly accepted or rejected, except in a very few cases, in which children were so highly accepted or rejected that this was not possible. We observed the children's social interaction by taking two members of the triad into a small room containing props designed to elicit social play, and then videotaping them with a hidden camera.

After ten minutes, the teacher brought the third child (the "intruder") into the room, and we videotaped the interaction of the three children for 10 more minutes. Each child was observed three times: once as the intruder and twice as part of the original pair.[2] For all three sessions, each child was with a different pair of children.[3] We wanted to group each child with several different peers so we could be sure that their communication patterns were not simply a function of interaction with one particular type of peer.

Later, each session was completely transcribed, and all verbal and non-verbal communications were recorded. Three aspects of social interaction were coded and analyzed: 1) children's direction of communication to others, 2) the types of initiations children made to each other, and 3) the types of responses children made to the initations of others. The codes used to categorize these three aspects of social interaction are presented in Figure 2. Interobserver reliability for all categories was greater than .85.

Results were analyzed in two different ways. First, 2-way repeated measures analyses of variance, with sociometric status group and condition as the independent variables, were performed on each of the dependent measures of direction of communication, types of initiations and types of responses.[4] Secondly, the communication measures for children with extreme scores were examined separately. These included the three most popular children (2 girls, 1 boy), the three most rejected children (1 girl, 2 boys), one highly neglected child (a boy), and one highly controversial child (a girl).[5] We reasoned that only a very few children from a sample of 43 would be sufficiently rejected or neglected to exhibit serious problems with their communication patterns. Similarly, closer examination of the few outstandingly popular children in the group should provide clearer information about the specific communication skills that most effectively contribute to social acceptance in preschool children. Differences in the communications of extreme children were analyzed using nonparametric z-tests on proportions.

The clearest differences we found in the communication patterns of the four social status groups were in the extent to which children clearly directed their communications to others, $F(3,36) = 4.17$, $p = .01$ (See Table 1A). Popular children more clearly indicated to whom they were speaking than did children in the other three groups. Also, rejected children were less clear in directing their communications when they were intruders than were other children as intruders.

To measure the extent to which children attended equally to both of their interaction partners, as opposed to directing a disproportionate number of communications to only one of the two children, we compared the social status groups on the difference between the proportion of communications they directed to the child they talked to most versus the child they talked to least. The difference between sociometric status groups was marginally

significant, $F(3,36) = 2.35$, $p = .08$). Popular children tended to divide their communications more evenly between their two interaction partners than did neglected children, who tended to direct a disporportionate number of communications to only one of the other two children.

The proportions of communications that were clearly directed versus nondirected were about the same for the extreme children as for the group as a whole. However, the extreme children exhibited greater differences in the extent to which they divided their communications between their two interaction partners, particularly in the intruder condition (see Table 1B). In the nonintruder condition, the highly neglected child divided his initiations less evenly than the others, as was the case for neglected children as a whole. But the extremely popular, controversial, and rejected children changed their distribution of communications when they were intruders. Whereas the popular children directed their communications more evenly when entering a group, the controversial and rejected children directed their attention more disproportionately in this condition.

In the types of initiations used, no significant differences between sociometric groups were found for the group as a whole, but the children with extreme scores did differ in interesting ways (see Table 2). The extremely rejected children used a higher proportion of nonverbal communication and expressives than the others. Also, whereas the very popular children used a lower proportion of nonverbal communication and expressives as intruders than as nonintruders, the rejected and neglected children used a higher proportion of these types of communication as intruders.

Very popular children made more suggestions and directives as nonintruders than did any other group. But they reduced the proportion of

suggestions they made when they were intruders, just as they reduced their nonverbal communications and expressives. Instead, they made a significantly higher proportion of statements and requests when entering a group.

The controversial child used more attention-getters than any of the other extreme children. The neglected child used fewer attention-getters as an intruder than did the other extreme children, and used a significantly lower proportion of attention-getters in the intruder condition as compared to the nonintruder condition.

Although for the group as a whole, sociometric status group differences for the individual categories of contingent and noncontingent responses were not found, a significant status group x condition interaction was found for contingent responses, $F(6,72) = 2.14$, $p = .06$ (see Table 3A). All groups except the popular children became less contingent as intruders.

Children with extreme scores also differed in the particular types of responses they exhibited (see Table 3B). Popular and controversial children were more likely to acknowledge the initiations of others when they were intruders than were neglected and rejected intruders, but they were not more likely to acknowledge the initiations of others as nonintruders. The popular and controversial children agreed with and acknowledged the initiations of others a much higher proportion of the time when they were intruders than when they were nonintruders. These children also rejected and ignored the initiations of others less as intruders than as nonintruders.

When the highly neglected child was an intruder, he rejected the initiations of others less, but ignored them more, than he did as a nonintruder. The highly rejected children did not change their pattern of responding at all between the two types of conditions.

In summary, then, it does appear that differences in communication patterns are found between children of different sociometric status, but most of these differences appeared only in children who represented very clear-cut examples of popular, controversial, neglected, and rejected social status.

Children who were above average in their level of social acceptance and below average in their level of social rejection were able to direct their communications more clearly than other children, and they had a greater tendency to direct these communications to both of their interaction partners rather than just one. They were also able to adapt their response strategies when trying to enter a peer group by responding more contingently to their peers. These findings indicate that relatively popular children may be more socially aware than less popular children. They may realize that in order to effectively influence their peers, they must clearly indicate to other children that they are speaking to them, and they must communicate with all members of the peer group. They may also realize that successfully entering an ongoing social interaction can be best achieved by attending to others and meeting their needs. Thus, they respond more contingently as intruders.

The three extremely popular children exhibited even more evidence of social awareness and social adaptation in their communication patterns. In particular they adjusted their patterns of initiating and responding to a considerable degree when they were required to enter an existing peer group. In such situations, they addressed their initiations to their two interaction partners more equally, they used more statements and requests, and they used fewer suggestions, directives, expressives, and nonverbal communications.

These findings may indicate that very popular children try to maximize their chances of entering a peer group by finding out as much as they can about

the ongoing interaction and then using clear and informative communications to get their message across. Thus, they seem to use requests to find out about the ongoing play theme and how they can contribute to it, and to use statements to clearly convey their own intentions. They decrease their use of nonverbal communications, which are often ambiguous, and expressives, which are usually superfluous to the establishment of shared play themes.

The significant decrease in the use of suggestions and directives by very popular intruders is especially interesting, since when they are part of an existing peer group, very popular children use a far higher proportion of these types of communications than other children. It may be that when they are part of an existing peer group, very popular children function as leaders, and thus frequently use suggestions and directives to solicit particular behaviors from others. But when they are required to enter an existing peer group, these children may realize that imposing their own suggestions and directives on an ongoing play situation would disrupt the play, and thus increase the likelihood that their entry into the group would be rejected.

The sensitivity of the very popular children to the differing social requirements of the intruder condition was also indicated by the changes in their patterns of responding to their peers in this situation. They were more likely to agree with them or at least acknowledge their initiations, and less likely to reject their initiations. Again, these findings indicate that very popular children are sensitive to the importance of attending to others and fitting in with the ongoing play when entering peer groups.

In contrast, the communication patterns of rejected children indicated a lack of awareness of the needs of others and of the particular social demands presented by the intruder condition. Children who were below average in social acceptance and above average in social rejection were less likely than other

children to clearly indicate to whom their initiations were directed. They also responded less contingently to the initiations of their peers as intruders than they did as nonintruders, even though contingent responding would seem to be most important when attempting to enter a group.

Communication patterns indicating a lack of social sensitivity were especially evident in the three extremely rejected children. Relative to the other children, they used a higher proportion of nonverbal initiations and expressives, which are minimally effective in influencing peer behavior, and they did not efficiently adapt their initiations when entering a group. In fact, they made more rather than fewer nonverbal initiations, which were often disruptive or bizarre, when attempting to enter a group. One highly rejected child, for example, tried to enter a group by first pretending to shoot them with a hair dryer and then by chasing them and trying to take their toys. Highly rejected children were also less likely than other children to agree with or acknowledge the responses of others.

The communication patterns of neglected children resembled those of rejected children in some ways. As a group, their initiations were less clearly directed than those of popular children. Also, our one highly neglected child did not adapt well to the intruder condition, as indicated by an increase in his use of nonverbal and expressive initiations, and an increase in his tendency to ignore the initiations of others.

Neglected children were unique in other ways. As a group, they were the least likely to distribute their initiations equally between both interaction partners. Instead, they directed a disproportionate number of initiations to one particular child. It was our impression that they chose to restrict their interactions primarily to the child with whom they felt most comfortable.

It may be that the communication problems of neglected children result not so much from lack of social awareness but instead from social inhibition. The communications of our highly neglected child in the intruder as compared with the nonintruder condition supports this suggestion. While he did increase his use of nonverbal and expressive initiations as an intruder, his overall use of these types of initiations was low. In both situations, he made relatively few attempts to influence the behavior of his peers by using suggestions and directives. As an intruder, he used far fewer attention-getters than other children, and although he was more likely to ignore the initiations of others in this condition, he was less likely to reject them. He appeared to be extremely uncomfortable as an intruder, and rather than risk offending anyone and being rejected, he chose instead to withdraw from the situation and not respond at all.

The communication patterns of controversial children were like those of popular children in some ways but were unique in other ways. As a group, controversial children directed their communications more clearly than rejected children, but not as clearly as popular children. However, the initiation patterns of the highly controversial child were very much like those of the extremely popular children. The major difference between them was that the controversial child made fewer suggestions and directives in the nonintruder condition than did the popular children, and used more attention-getters in the intruder condition. The response pattern of the very controversial child was also very similar to that of the popular children. She also agreed more, and rejected and ignored less, as an intruder. However, as a group, controversial children became less rather than more contingent as intruders. It may be that controversial children have the social skills and sensitivity to adapt their communications effectively in different types of social situations, but for motivational reasons do not always do so. Perhaps their need to draw

attention to themselves somtimes overwhelms their ability to successfully adapt. More information is clearly needed about the social interaction patterns of highly controversial children.

We are currently in the process of extending these finding to other preschool groups in order to obtain a larger sample of very popular, neglected, rejected, and controversial children. We are also investigating the content of social communication, especially sociodramatic play themes. From our observations, we hypothesize that popular children are better able to maintain and combine play themes, and may have more hierarchically organized and nested themes. We hope that by providing more information about the relationship between social acceptance and communication skills, this research will be of benefit in devising training programs to enhance children's social competence.

Figure 1. SOCIOMETRIC STATUS GROUPS

Social Rejection	Social Acceptance: High	Social Acceptance: Low
High	Controversial N=7(3M,4F)	Rejected N=11(6M,5F)
Low	Popular N=12(4M,8F)	Neglected N=13(6M,7F)

Figure 2. COMMUNICATION CODES

I. Direction of Communication

Child One/Child Two -- Speaker clearly directs initiation to one of the other two children by addressing the child or using eye contact.

Undirected -- Not clear whom child is addressing

II. Types of Initiations (adapted from Dore, Gearhart, & Newman, 1978)

All utterances were coded as initiations except those that functioned only as responses and added nothing beyond accepting, rejecting, or acknowledging the previous initiation (e.g., "Yes", "No", "Oh", etc.).

Nonverbal Initiations -- Includes aggressive and affectionate physical contact, and actions done to initiate interaction (e.g., rolling a toy car toward another, hiding, chasing).

Expressives -- Non-propositional expression of feelings and attitudes. Includes exclamations (e.g., "Oh no!", "Yikes!", "Yahoo!"), repeating self or others, word play (e.g., "Luke, Duke, buke, kook", "Su-per-man-ta-ta-ta"), and accompaniments to action (e.g., saying "There!" while completing an action).

Attention getters/Boundary markers -- Attention getters draw attention to the self (e.g., "He, look!", "Tom! Tom!"); boundary markers indicate openings and closings of conversation (e.g.; "Hi, ..."; "Well, ..."; "Now, ...")

Statements -- Propositions that report facts, rules, attitudes, and conditions. Includes identifications (e.g., "I'm Batman"), descriptions (e.g., "Your hat is too big."), explanations (e.g., "It will break if you drop it"), internal reports (e.g., "I don't like that."), evaluations (e.g., "That's silly"), and rules (e.g., "We have to stay in this room.")

Suggestions/Directions -- Suggestions recommend performance of an action to others (e.g., "Let's play house," "Want to be the baby?"); directives require the performance of an action to others (e.g., "Give me that.")

Requests for Information -- Includes request that begin with "Who ...", "What...", "Why..." "Where...", etc., and requests for a choice (e.g., "Does this go here?", "Do you want the black purse or the green one?)

Requests for Permission or Compliance -- Requests something from another (e.g., "Will you get me that car?", "Can I play?")

III. Types of Responses

Contingent Responses

Agrees/Acknowledges/Answers -- Agrees with a Suggestion, Directive, or Request for Permission or Compliance; acknowledges an initiation (e.g., "Oh," "Hmm"); or answers a request for information.

Rejects -- Disagrees with a suggestion, directive, request for permission or compliance, or statement.

Joins -- Adds to, qualifies, or modifies the idea expressed in the initiation.

Noncontingent Responses

Ignores -- Child does not respond to the initiation.

Free Association -- Child does not respond canonically to other child's initiation, but free associates.

Table 1. DIRECTION OF COMMUNICATIONS

(Mean proportions of initiations)

A. For All Children

		POPULAR N=12	CONTROVERSIAL N=7	NEGLECTED N=12	REJECTED N=9
INITIATIONS CLEARLY DIRECTED TO OTHERS	I	.78	.60	.64	.53
	NI	.78	.63	.65	.64
INITIATIONS NOT CLEARLY DIRECTED	I	.20	.37	.31	.44
	NI	.21	.33	.32	.32
DIFFERENCE IN MEAN PROPORTION OF INITIATIONS DIRECTED TO CHILD 1 VS. CHILD 2	I	.19	.25	.28	.24
	NI	.22	.23	.31	.21

B. For Children with Extreme Scores

		POPULAR N=3	CONTROVERSIAL N=1	NEGLECTED N=1	REJECTED N=3
DIFFERENCE IN MEAN PROPORTION OF INITIATIONS DIRECTED TO CHILD 1 VS. CHILD 2	I	.01	.44	.31	.19
	NI	.09	.10	.26	.06

I = Intruder condition

NI = Nonintruder conditions (Mean proportion for the two nonintruder conditions)

Table 2. TYPES OF INITIATIONS MADE (Mean proportions of initiations)

For Children with Extreme Scores

		POPULAR N=3	CONTROVERSIAL N=1	NEGLECTED N=1	REJECTED N=3
NONVERBAL	I	.07	.07	.09	.22
	NI	.17	.00	.01	.13
EXPRESSIVES	I	.03	.09	.17	.23
	NI	.11	.11	.11	.34
ATTENTION GETTERS/ BOUNDARY MARKERS	I	.15	.25	.06	.15
	NI	.18	.23	.15	.10
STATEMENTS	I	.49	.29	.62	.29
	NI	.31	.49	.60	.29
SUGGESTIONS/ DIRECTIVES	I	.07	.09	.05	.04
	NI	.21	.12	.00	.08
REQUESTS FOR PERMISSION/ COMPLIANCE	I	.10	.07	.02	.02
	NI	.04	.06	.04	.03
REQUESTS FOR INFORMATION/ CLARIFICATION	I	.15	.11	.02	.05
	NI	.08	.07	.01	.06

Table 3. TYPES OF RESPONSES (mean proportions of responses)

A. For All Children

		POPULAR N=12	CONTROVERSIAL N=7	NEGLECTED N=12	REJECTED N=9
CONTINGENT RESPONSES	I	.83	.70	.80	.71
	NI	.82	.77	.84	.76

B. For Children with Extreme Scores

		POPULAR N=3	CONTROVERSIAL N=1	NEGLECTED N=1	REJECTED N=3
CONTINGENT RESPONSES:					
JOINS	I	.18	.33	.33	.30
	NI	.20	.28	.29	.30
AGREES/ ACKNOWLEDGES	I	.60	.50	.30	.26
	NI	.36	.38	.33	.27
REJECTS	I	.06	.06	.07	.20
	NI	.16	.14	.25	.17
NONCONTINGENT RESPONSES:					
IGNORE	I	.13	.11	.26	.21
	NI	.27	.21	.04	.21
FREE ASSOCIATION	I	.02	0	0	.02
	NI	.01	0	.08	.04

Footnotes

1. Children received 8 points each time they were selected as a first choice, 6 points each time they were selected as a second choice, and 4 points each time they were selected as a third choice. These points were then summed and divided by the total number of selections made by all of the children in a particular class.

2. Due to the extended absenteeism of one boy, one of the groups missed a session. Therefore, two boys were only observed once as non-intruders, and one was never observed as an intruder.

3. An exception to this procedure had to be made for one class because it had only 5 boys.

4. The design was a 4(sociometric status group) x 3(number of observations) repeated measures ANOVA. Only 40 subjects were used in this analysis, since three had missing data.

5. The extremely popular children all achieved social acceptance scores of greater than 1.0 and were below the mean on social rejection, whereas the extremely rejected children all achieved scores of social rejection of greater than 1.0 and were below the mean on social acceptance. No child was completely unchosen, but the child who came closest to social isolation was a boy who was only chosen once (as accepted). Only one child was highly controversial, i.e., at least one standard deviation above the mean on both acceptance and rejection scores.

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